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ISO/TC 69/SC 6, WG 1 AND WG 4 MEETING
TOKYO, JAPAN 1985-09-30 TO 1985-10-03

R. Sutarno
Physical Chemistry Section
Extraction Metallurgy Laboratory

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MRP-3.0.6.9.01 Reference Materials

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la technologie des minéraux et de
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ISO/TC 69/SC 6, WG 1 AND WG 4 MEETING
TOKYO, JAPAN 1985-09-30 TO 1985-10-03

by

R. Sutarno*

This report covers the ISO/TC 69/SC 6 (ISO Technical Committee on Application of Statistical Methods, Subcommittees on Application of Precision Data), WG 1 (Working Group on Revision of ISO 5725) and WG 4 (Working Group on Reference Materials) meetings held in Tokyo, Japan 1985-09-30 to 1985-10-03. Long term revision of ISO 5725 "Precision and trueness of test methods" and ISO Guide 33 "Uses of reference materials for assessment of a measurement process" were discussed at these meetings.

*Convener of ISO/TC 69/SC 6/WG 4, Research Scientist, Physical Chemistry Section, Extractive Metallurgy Laboratory, Mineral Sciences Laboratories, CANMET, Energy, Mines and Resources Canada K1A 0G1.

LA RÉUNION DE ISO/TC 69/SC 6, GT 1 ET GT 4

TOKYO, JAPON 1985-09-30 AU 1985-10-03

par

R. Sutarno*

Ce rapport traite des réunions du comité technique ISO/TC 69/SC 6 (application des méthodes statistiques/application des données relatives à la fidélité), du groupe de travail sur la révision de la norme ISO 5725 (GT 1) et du groupe de travail sur les matériaux de référence (GT 4) tenues à Tokyo au Japon du 1985-09-30 au 1985-10-03. Revision à long terme de ISO 5725 et le Guide 33 de l'ISO "Utilisation des matériaux de référence pour l'évaluation des méthodes d'analyse" sont étudiés.

*Chercheur scientifiques, Section de la chimie physique, Laboratoire de métallurgie extractive, Laboratoires des sciences minérales, CANMET, Énergie, Mines et Ressources, Canada K1A 0G1

ISO/TC 69/SC 6/WG 1

ISO Technical Committee on Application of Statistical
Methods - Subcommittee on Application of Precision Data
Working Group 1 - Revision of ISO 5725

Meeting: Nippon Kaiun Club, Tokyo, Japan

Date : 1985-09-30 to 1985-10-01

Present: W.H. Oakland (UK, Convener), K.N. Clementson (UK Acting Secretary), P.T. Wilrich, K. Petrick (Germany), R. Sutarno (Canada), A.B. Godfrey, R.A. Freund (USA), H.J. Reuss (Denmark), K. Nomura, T. Fujimori, E. Hirata, U. Takahashi, Y. Ojima and T. Miyazu (Japan).

This meeting was a continuation of the working group meeting held in London, June 1985. The presence of the USA delegation at this meeting added some new ideas on the content of the new ISO 5725. The problem of writing this document is that it must be applicable for all measurement processes encountered by all technical committees within ISO. It was decided at the London meeting that the standard will be divided into a number of parts and each part will consist of a number of sections. Each member of the working group was assigned to draft some sections according to their own expertise.

1. Part 1 (H.C. Hamaker, Netherlands)

This is the introductory part of the standard. It is supposed to contain the general principles of precision and trueness of measurement processes. A preliminary draft was submitted by H.C. Hamaker for discussion. However, the delegates feel that it does not contain all topics suggested at the last London meeting. H.C. Hamaker is requested with the help of UK delegation to redraft the document taking into account all comments made at both this and London meeting.

2. Part 2 (W.H. Oakland, UK)

This part is supposed to contain the organization and the algorithm for the interlaboratory test programs. It is essentially a copy of the present version of ISO 5725. Due to a mistake in the reproduction process, this document was not properly drafted. For this reason this part was not discussed at this meeting, but no difficulty is anticipated in its preparation. The convener was requested to redraft it properly in time for the next meeting.

3. Part 3 (T. Miyazu, Japan)

The present version of ISO 5725 deals only with precision measures at two extreme conditions; the repeatability, at the condition with minimum change, and the reproducibility, at the condition with maximum change between replications.

In real life, most measurement processes are conducted under conditions somewhere between these two extremes. This part of the standard will deal with some of these intermediate conditions (changing various factors in the measurement process: equipment, calibration, operation, etc.). A draft document was presented by T. Miyazu. The delegates agreed in principle with the content of the draft but it should include experimental designs actually used by various ISO Technical Committees (TC 102/SC 2, TC 13, TC 183, etc.). T. Miyazu was requested to redraft this document in time for the next meeting.

4. Part 4 (Various Members)

This part will contain standards for various applications of precision measures. It is divided into open-ended sections; each contains a specific application. Each section was assigned to members according to their individual expertise.

(a) Comparison of two alternative test methods (R. Sutarno, Canada)

The first draft of this document has been accepted at the London meeting with minor editorial comments. The second draft was discussed, and again was accepted with some suggestion to modify the introductory chapter of the document. R. Sutarno will prepare the third draft in time for the next meeting.

(b) Certification of laboratories (K. Zedeler, Denmark)

The second draft of this document was presented and discussed. There are still a number of technical modifications necessary to make the draft acceptable. K. Zedeler was requested to redraft the document taking into account all the suggestions made at the meeting.

(c) Stability of test results (T. Miyazu, Japan)

A draft document was presented and discussed. A new draft will be prepared taking into account all technical comments made at the meeting.

(d) Compliance with specification (P.T. Wilrich, F.D.R.)

This project has been outstanding for a number of years (since 1979). Finally a draft (of acceptable form) was presented by Germany. Small technical and some editorial comments were received from the delegates. Because of the nature of the subject (which may not be directly related with other parts of ISO 5725), the working group will have to decide at the next meeting, based on the new draft, whether it should be part of ISO 5725 or a separate standard.

Next Meeting

The next meeting of ISO/TC 69/SC 6/WG 1 will be held in Copenhagen, Denmark, June 16-20, 1986. All the redrafted documents should be in the hands of the WG Secretariat by April 1, 1986.

ISO/TC 69/SC 6/WG 4

ISO Technical Committee on Application of Statistical
Methods - Subcommittee on Application of Precision Data
Working Group 4 - Reference Materials

Meeting: Nippon Kaiun Club, Tokyo, Japan

Date : 1985-10-2/3

Present: R. Sutarno (Canada, Convener), H.J. Reuss (Denmark), P.T. Wilrich,
K. Petrick (Germany), R.A. Freund (USA), K. Iizuko, Y. Ojima, U.
Takahashi, T. Miyazu, T. Fujimori, E. Hirata, K. Nomura (Japan),
W.H. Oakland (UK)

ISO/TC 69/SC 6/WG 4 is a formalized working group constituted from the former joint working group between ISO/TC 69/SC 6 and REMCO. The task of this working group is to deal with the statistical aspects of REMCO work. The present project is to prepare ISO Guide 33 "Uses of certified reference materials for the assessment of a measurement process".

The main document discussed at this meeting was the fourth draft of ISO Guide 33. This draft was written as a result of the joint working group meeting held in London in June 1985 and has been circulated simultaneously both to REMCO and WG 4 members.

Three written comments were received from E. Colinet (EEC), T. Miyazu (Japan) and R.A. Freund (USA). There was no objection on the technical part of the document. The discussion was mainly on terminology; effort was made to harmonize it with the terminology used by OIML (Organisation Internationale de Métrologie Légales). The following conclusions were made:

- 1) The convener with the help of T. Miyazu, Y. Ojima and K. Iizuka was to modify the document to conform with OIML terminology. This was done on the October 3 morning.

- 2) The resulting modification will be incorporated into the fifth draft which will be submitted to REMCO as soon as possible in time for the coming REMCO meeting, December 11, 1985.
- 3) E. Colinet (EEC) and K. Iizuka (Japanese delegate to REMCO) will be requested to present this draft at the REMCO meeting.
- 4) If REMCO accepts this draft, it will then be published as ISO Guide 33 by REMCO. This document will then be rewritten and published in a standard form as part of ISO 5725.
- 5) No meeting of this working group was planned at this time. The next meeting will depend on the REMCO decision on this document and also on future work assigned by REMCO.

ISO/TC 69/SC 6

ISO Technical Committee on Application of Statistical
Methods - Subcommittee on Application of Precision Data

Meeting: Nippon Kaiun Club, Tokyo, Japan

Date : 1985-10-02

Present: The same as for WG 1 and WG 4 plus J.C. Courtier (France), J. Enger (Sweden) and V. Koukhar, a representative from ISO Central Secretariat

The meeting was convened by P.T. Wilrich, the permanent chairman of the subcommittee.

Since the subcommittee work is assigned to various working groups, this meeting was a plenary meeting where each working group reported its activities.

WG 1

- 1) The short term revision of ISO 5725 is in the hands of ISO Central Secretariat ready for publication.
- b) Long term revision of ISO 5725 is well in progress and the target date is unchanged, 1989.

WG 2

The task of this working group is complete. Document 6 N 97 "Methods for checking the acceptability of test results obtained under repeatability and reproducibility conditions" was accepted in principle and at present is in the hand of the Secretariat of SC 6. Subsequently the working group was dissolved.

WG 3

In the absence of the convener, J.C. Courtier reported the activities of WG 3. The working group is working on the statistical aspects of measurement uncertainty. Some progress has been made, but the draft is still in early stages. Canada does not participate in this working group.

WG 4

This newly formalized working group is working on statistical aspects of reference materials. The written report on activities of this working group is appended in this report.

Other decisions made at this meeting are:

1. P.T. Wilrich was reelected as chairman of SC 6 for another 3 year period.
2. The joint working group between ISO/TC 69/SC 6 and REMCO was formalized into WG 4. The task of this working group is unchanged.
3. Because of the change in the nature of the work of SC 6, which now includes the systematic part measurement uncertainty (as determined, for example, by the use of certified reference materials), the name of the subcommittee will be changed to "APPLICATION OF STATISTICAL METHODS/MEASUREMENT METHODS AND RESULTS".
4. The subcommittee will establish liaison with ISO/TAG 4 - Metrology.
5. In view of the confusion in the use of the term "accuracy", this term will no longer be used in ISO documents. It will be replaced by the term "trueness and precision of test methods", trueness being the systematic part and precision being the random part of the uncertainty.

Items to be Acted on Immediately (all by R. Sutarno)

1. To prepare the fifth draft of ISO Guide 33 in time for REMCO meeting, December 11, 1985.
2. To prepare the third draft on ISO 5725 section on "Comparison of two alternative test methods" by April 1, 1986.

Next Meetings

- ISO/TC 69/SC 6 - No definite date
- ISO/TC 69/SC 6/WG 1 - 1986-06-16/20 in Copenhagen
- ISO/TC 69/SC 6/WG 4 - No definite date pending REMCO decision on ISO Guide 33 and/or other new REMCO projects that require statistical consideration

Conclusion

The four-day meeting has been technically productive. The project on the long term revision of ISO 5725 has been progressing at the expected rate; some parts/sections have been progressing faster than others. New ideas are still coming. The preparation of ISO Guide 33 has been virtually completed. The next project of WG 4 will be to investigate the need to develop both Guide 33 and Guide 35 into standards, and if required, to undertake this development. This will be a joint decision between ISO/TC 69 and REMCO.

The importance of the work of this Technical Committee to other ISO Technical Committees is becoming more evident. The new version of ISO 5725 will be an ISO handbook for the determination of precision and trueness of all measurement processes dealt with by all ISO Technical Committees. The development of the standard on the conformity with specification (ISO/TC 69/SC 6 N 100 E), for example, is a direct support to the work of ISO/CASCO (Committee on conformity assessment). For this reason, it is recommended that Canada continue to support the work of ISO/TC 69/SC 6.

APPENDIX A

3 Oct. 1985, Tokyo

ISO/TC69/SC6/WG4 "Statistical aspects of reference materials"
(Joint Working Group with REMCO)

Unconfirmed minutes of the meeting in Tokyo, 2 October 1985
(14.00 until 17.00 h)

Delegates Present: see attached list

1. Opening remark

Mr. Sutarno opened the meeting which was informed that WG4 has now been established officially by SC6. Mr. Sutarno was appointed as convenor. WG4 is a joint working group with REMCO.

2. Approval of minutes of London meeting, June 25, 1985

The minutes were accepted and Mr. Sutarno stated that all actions necessary according to the minutes have been made.

3. Report on activities (Nov. 84 - Sept. 85)
See attachment.

The fourth draft of ISO Guide 33 (August 1985) was prepared by Mr. Sutarno on the basis of the decisions taken at the last meeting and of several comments received. The draft was sent to the members by letter dated 13 Sept. 1985.

4. Discussion of draft of ISO Guide 33

It was agreed to discuss the fourth draft (August 1985) in respect to the later publication as an ISO Guide after acceptance by REMCO. In future this guide will form the basis of an International Standard probably within the framework of ISO 5725 (long-term revision). It will be necessary to formulate this later standard in a more precise wording.

REMCO will be informed on this intention relating to a future standard.

Several comments received before the meeting or tabled at the meeting and additional questions raised at the meeting were discussed (comments from Mme. Colinet, Mr. Freund, Japan). Mr. Sutarno agreed to prepare the revised version on the basis of the agreements achieved at the meeting and to transmit the new version to WG4 and to REMCO. Mr. Iizuka, Miyazu and Ojima agreed to help.

5. The working group agreed to request Mme. Colinet and Mr. Iizuka to present (explain) the new (fifth) draft at the ISO/REMCO meeting to be held in Geneva, December, 1985.

6. Future work

Preparation of an International Standard (see above)

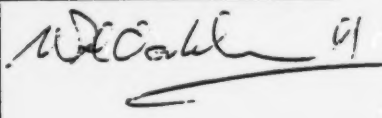
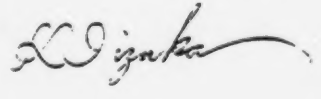
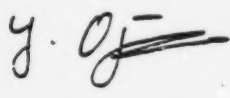
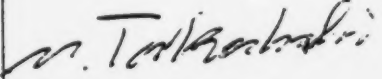
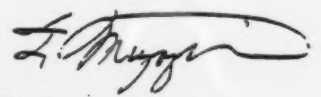
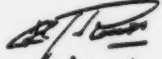
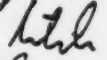
7. Next meeting

No decision

R. Sutarno

Convenor of ISO/TC69/SC6/WG4

Delegation List of
ISO TC 69/SC5/WG4 Tokyo Meetings 1985

Name	Affiliation	Signature
W. H. CAULAND	NATIONAL METAL BOARD London	
K. IIZUKA	National Research Laboratory of Metrology. AIST, MITI, Japan	
Y. Ojima	University of Tokyo (Dept. Reaction Chemistry)	
U. TAKAHASHI	YCSA	
T. MIYAZU	NIPPON KOKAN K.K.	
T. FUJIMORI	NAGASAKI UNIVERSITY	J. Fujimori
E. Hirata	NIPPON KOKAN K.K.	E. Hirata
K. NOMURA	TOKYO GAS CO.	K. Nomura
H. J. REUSS	DANISH STANDARDS ASSOCIATION	
P. T. WILRICH	Freie Universitaet Berlin	
R. TENDR	DIN Techn.	R. Tindr
R. A. FREUND	QUALITY PLANNING SERVICES	R. A. Freund
R. SUTARNO	CANMET	R. Sutarno

Draft Report onActivities of ISO/TC 69/SC 5 - REMCO Joint Working Group

November 1984 - September 1985

- 1 - The joint working group met in Berlin on November 12 and 16. The first draft of ISO Guide 33 "Uses of Certified Reference Materials for the Assessment of a Measurement Procedure", ISO/REMCO 114 was discussed in detail.
- 2 - The second draft of ISO Guide 33 was prepared taking into account all comments made at the above meeting as well as comments received from REMCO members. This second draft was circulated to the members of the joint working group in January 1985 for comment.
- 3 - The joint working group met in London on June 26, 1985. The second draft was discussed. After lengthy discussion, the delegates agreed to change the concept of using reference materials from "zero" bias to "allowable" bias concept. The later concept was considered to be more general and focus on specific requirement imposed to the experimenter. This requirement could originate from various sources (commercial, regulatory, etc.).

The third draft of ISO Guide 33, outlining this change was prepared by W.H. Michell, Y. Ojima and R. Sutarno on June 27, 1985 and was circulated to the members of the joint working group for comment by August 16, 1985 to enable a revised document to be prepared for discussion in Tokyo.

- 4 - Comments were received from E. Colinet. The fourth draft has been prepared and circulated. It will be used as the basis for discussion at the joint working group meeting, October 2, 1985.
- 5 - Miscellaneous
 - a) ISO Guide 35 "Certification of reference materials - General and statistical principles" has been published.
 - b) In order to comply with administrative red tape, it has been proposed that this joint group be formalized into an ISO working group.

R. Sutarno

ISO/TC69/SC6
Resolution Tokyo 1985 Meeting

Resolution 1 E/1985

ISO/TC69/SC6 decided to nominate Prof. WILRICH (Germany, F.R.) as Chairman of ISO/TC69/SC6 for the next three-year term (1986-1988) and entrusted its Secretariat to undertake the necessary steps for his appointment by ISO/TC69.

Résolution 1 F/1985

Resolution 2 E/1985

ISO/TC69/SC6 strongly recommended to ISO/TC69 that a formal liaison be established between ISO/TC69/SC6 and TAG4 to ensure full interchange of information and the consistency of definitions and terminology when these have a statistical basis, and requested ISO/TC69 to nominate a representative of SC6 for this liaison.

Résolution 2 F/1985

Resolution 3 E/1985

ISO/TC69/SC6 proposed to modify its title as follows:-
"APPLICATION OF STATISTICAL METHODS/MEASUREMENT METHODS AND
RESULTS" and instructed its secretariat to submit this proposal
together with the necessary justification to the ISO/TC69 for
decision.

Résolution 3 F/1985

Resolution 4 E/1985

ISO/TC69/SC6 decided to enlarge the scope of the long-term
revision of ISO 5725 to cover ACCURACY (TRUENESS AND PRECISION)
OF TEST METHODS.

Résolution 4 F/1985

Resolution 5 E/1985

ISO/TC69/SC6 considering that additional time is required for the finalization of the documents

- ISO/TC69/SC6 N59 on uncertainty of measurement;
- N100 on conformity with specifications;
- N56 on reference materials;

— requested ISO/TC69 to reconfirm this work item for three more years.

Résolution 5 F/1985

Resolution 6 E/1985

ISO/TC69/SC6 decided to establish a new working group ISO/TC69/SC6/WG4 "Statistical aspects of Reference Materials" which will be a joint working group with REMCO, and to appoint Mr. R. Sutarno (Canada) as convenor of this working group.

Résolution 6 F/1985

Resolution 7 E/1985

ISO/TC69/SC6 approved the document ISO/TC69/SC6N97 as a draft proposal and instructed its secretariat

- to introduce into the text the modification necessary according to the comments received and submit it to the ISO Central Secretariat for registration as an addendum to ISO 5725,
- to circulate it for approval ~~under combined voting procedure~~ in view of its submission as DIS5725/DAD2 after the next SC6 meeting together with DP 7872 to be renumbered as DIS5725/DAD1 (on an intermediate measure of precision due to calibration and recalibration).

Résolution 7 F/1985